

OPTIMIZATION USING A MULTI-DIMENSIONAL DATA MODEL

ABSTRACT OF THE DISCLOSURE

A system (10) for optimization using multi-dimensional data includes a server (12) that uses a multi-dimensional data model to organize data stored at one or more data storage locations (14). The multi-dimensional data model includes a number of data dimensions (50, 70) that each include a hierarchy of members (54, 74). The server (12) receives input from a user specifying a problem instance to be solved using an optimization engine (20). The problem instance is specified by the user in a multi-dimensional format and the optimization engine (20) is unable to solve the problem instance in the multi-dimensional format. The system (10) also includes a transformation module (22) that receives the problem instance in the multi-dimensional format, transforms the problem instance into a format appropriate for the optimization engine (20), and communicates the transformed problem instance to the optimization engine (20) to be solved.